

(19) World Intellectual Property
Organization
International Bureau



(43) International Publication Date
4 August 2005 (04.08.2005)

PCT

(10) International Publication Number
WO 2005/071708 A3

(51) International Patent Classification⁷: **H01J 37/28**

Hans-Peter [DE/DE]; Arno-Assmann-Strasse 14, 81739 München (DE).

(21) International Application Number:
PCT/EP2005/000598

(74) Agents: **ZIMMERMANN, Gerd** et al.; c/o Zimmermann & Partner, Postfach 330920, 80069 Munich (DE).

(22) International Filing Date: 21 January 2005 (21.01.2005)

(81) Designated States (*unless otherwise indicated, for every kind of national protection available*): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
04 001 221.3 21 January 2004 (21.01.2004) EP

(71) Applicant (*for all designated States except US*): **ICT INTEGRATED CIRCUIT TESTING GESELLSCHAFT FÜR HALBLEITERPRÜFTECHNIK MBH** [DE/DE]; Ammerthalstrasse 20a, 85551 Heimstetten (DE).

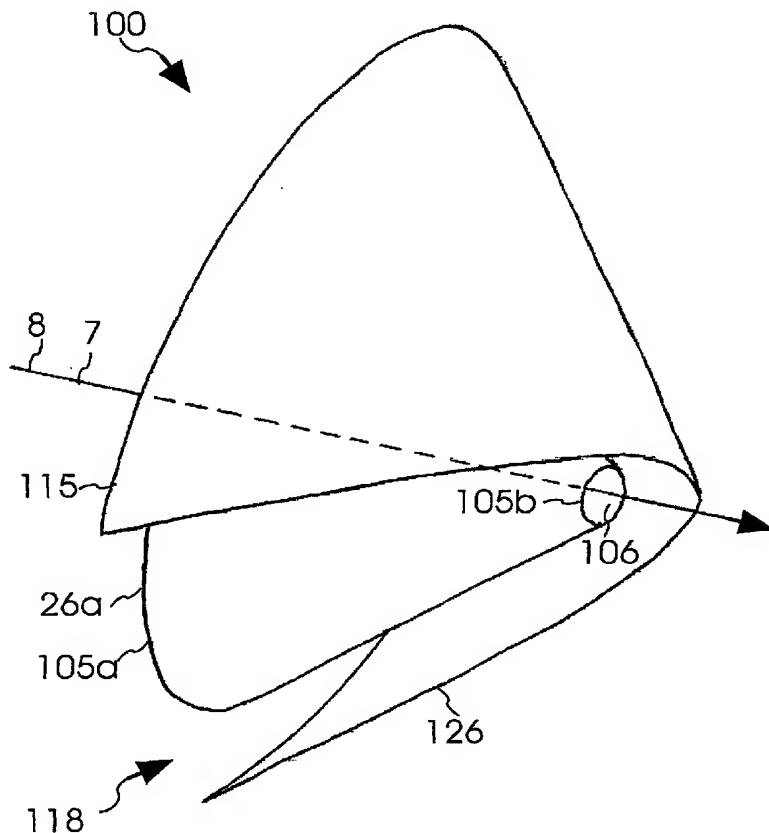
(84) Designated States (*unless otherwise indicated, for every kind of regional protection available*): ARIPO (BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM),

(72) Inventor; and

(75) Inventor/Applicant (*for US only*): **FEUERBAUM,**

[Continued on next page]

(54) Title: FOCUSsing LENS FOR CHARGED PARTICLE BEAMS



(57) Abstract: The present invention relates to a focussing lens (100) for focussing a charged particle beam (7) onto a specimen (3) at a predetermined landing angle (42; 42'; 42) comprising at least one first electrode (26, 105, 105a) having a first aperture (106) to generate a focussing electric field (110) for focussing the charged particle beam (7) onto the specimen (3); and a correcting electrode having a curved surface (115) to compensate for landing angle dependent distortions of the focussing electric field (110) caused by the specimen (3). With the curved surface (115) of the correcting electrode it is possible to improve the focussing of a charged particle beam at landing angles that differ from the perpendicular landing angle.

WO 2005/071708 A3



European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

Published:

- *with international search report*
- *before the expiration of the time limit for amending the claims and to be republished in the event of receipt of amendments*

(88) Date of publication of the international search report:
8 December 2005

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.